AMENDMENT AND RESPONSE UNDER 37 CFR § 1.111

Serial Number: 10/050,237

Filing Date: January 15, 2002

Title: METHOD AND APPARATUS FOR SEARCHING FOR A BASE STATION USING AN ADAPTABLE SEARCH WINDOW

Assignee: Intel Corporation

REMARKS

In response to the Office Action dated 8 July 2004, the applicant requests reconsideration of the above-identified application in view of the following remarks. Claims 1-31 are pending in the application, and are rejected. Claim 22 will be amended upon entry of the present amendment. No new matter has been added.

Amendments to the Drawings and Specification

Figures 3, 4, 5, and 6 have been renumbered as Figures 3A, 3B, 4A, and 4B, respectively, in the formal drawings filed herewith. The specification has been amended herein to reflect this change. No new matter has been added.

Claim Amendment

Claim 22 is amended herein to provide a proper antecedent basis for a claim element, and is not amended in response to the prior art rejection. No new matter has been added. This is not a narrowing amendment.

Rejection of Claims Under \$102

Claims 1, 11 and 12 were rejected under 35 USC § 102(b) as being anticipated by Hwang (U.S. 6,161,022). The applicant respectfully traverses.

Independent claim 1 recites a mobile communicator comprising "a search receiver to search for a base station using a search window size that adapts over time based on a changing channel condition between the base station and the mobile communicator."

Independent claim 12 recites a "method for searching for a base station from a mobile communicator" comprising "searching for the base station using a search window" and "adapting a size of the search window over time based on a changing channel condition between the base station and the mobile communicator."

Hwang relates to a "method of adjusting a size of a base transceiver station search window." Hwang does not show a mobile communicator comprising a search receiver using a

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¹ Hwang, title.

search window size that adapts over time as is recited in claim 1 or a method for searching for a base station from a mobile communicator comprising adapting a size of the search window as is recited in claim 12. The search window of Hwang is used by the base transceiver station (BTS), not the mobile station 10.² In addition, the search window of Hwang is adjusted based on a service radius of the BTS, and is not "based on a changing channel condition" as is recited in claims 1 and 12.³

The applicant respectfully submits that Hwang does not show all of the features recited in independent claims 1 and 12, and that claims 1 and 12 are in condition for allowance. Claim 11 is dependent on claim 1, and recites further features with respect to claim 1. For reasons analogous to those stated above, and the features in the claim, the applicant respectfully submits that Hwang does not show all of the features recited in claim 11, and that claim 11 is in condition for allowance.

Rejections of Claims Under \$103

Claims 2-9 and 13-31 were rejected under 35 USC § 103(a) as being unpatentable over Hwang in view of Zhong (U.S. 6,526,029). The applicant respectfully traverses.

Zhong issued on 25 February 2003, which is after the filing date of the present application. The applicant does not admit that Zhong is prior art, and reserves the right to swear behind Zhong at a later date.

Zhong relates to a "search scheme for receivers in mobile communications systems." The office action cited the background and summary of Zhong, 5 but the language referred to in Zhong does not supply the elements missing in Hwang discussed above. Zhong describes the use of a search window by a base station, and not by the mobile unit of Zhong. 6

The language of Zhong cited in the office action does not show the claimed elements. For example, Zhong does not show the use of a first search window size during normal operation and then changing to a second, larger search window size as is stated in the office action.⁷ The

² Hwang, column 1, lines 15-25; column 3, lines 9 to 23.

³ Hwang, column 5, line 44 to column 6, line 58.

⁴ Zhong, title.

⁵ Office action, pages 3-10.

⁶ Zhong, column 2, lines 17-53; column 3, lines 60-61.

⁷ Office action, page 3.

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cited text of Zhong⁸ describes a search window that is too small for some situations, and that one solution is to use a larger search window. Zhong does not describe using a first window size and then changing to a larger search window during the same operation of the same device. Furthermore, lines 30-34 and 51-53 of column 2 of Zhong are in the background, while lines 59-64 are in the summary of the invention section of Zhong. These passages do not describe the same apparatus or method.

The office action referred to the references Rick and Popovic on the bottom of page 4, but neither Rick nor Popovic are applied in the rejection of claims 2-9 and 13-31, and Popovic is not of record.

The office action uses the word "inherent" in several places. The MPEP states that missing matter must be "necessarily present" in the reference to support a rejection based on inherency:

"To establish inherency, the extrinsic evidence must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient."

The MPEP further states that the examiner must provide a basis to support a determination that the allegedly inherent characteristic necessarily flows from the teaching of the art:

"In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art."¹⁰

The Office Action has not provided a sufficient basis in fact and/or technical reasoning to reasonably support its contention that it is inherent to "aim for a window that encompasses a majority possible of delay spread conditions" or "where a controller is an inherent part of an a variable search window size method."

Furthermore, the office action did not present evidence of a suggestion for combining Hwang with Zhong. The office action states that:

⁸ Zhong, column 2, lines 30-34, 51-53, and 59-64.

⁹ MPEP 2112.

¹⁰ MPEP 2112. Emphasis in original.

¹¹ Office action, pages 4 and 7.

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"it would have been obvious...to combine Hwang's adaptable search size window with Zhong's observation of first and second window size as an alternative solution to avoid termination of communication in a communication system."¹²

The MPEP requires a suggestion and a reasonable expectation of success for a rejection under 35 USC § 103:

"To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations."¹³

The suggestion or motivation to combine references and the reasonable expectation of success must both be found in the prior art.¹⁴

The office action has not identified prior art as being the source of the quote above from the office action as is required by MPEP 2143. The office action has also not identified a reasonable expectation of success in the prior art as is required by MPEP 2143.

The applicant respectfully submits that a *prima facie* case of obviousness has not been established against claims 2-9 and 13-31, and that claims 2-9 and 13-31 are in condition for allowance.

Claim 10 was rejected under 35 USC § 103(a) as being unpatentable over Hwang in view of Zhong and further in view of Rick et al. (U.S. 6,738,438, Rick). The applicant respectfully traverses.

Rick issued on 18 May 2004, which is after the filing date of the present application. The applicant does not admit that Rick is prior art, and reserves the right to swear behind Rick at a later date.

The office action did not present evidence of a suggestion for combining Hwang, Zhong, and Rick. The office action states that:

¹² Office action, page 4.

¹³ MPEP 2143.

MPEP 2143.

14 MPEP 2143.

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"it would have been obvious...to combine Hwang's adaptable search size window and Zhong's observation of first and second window size with Rick's quality of measure unit in order to obtain quality measurements that can be used as reference to maintain good communication between the mobile station and the base station." ¹⁵

The office action has not identified prior art as being the source of the quote above from the office action as is required by MPEP 2143. The office action has also not identified a reasonable expectation of success in the prior art as is required by MPEP 2143.

The applicant respectfully submits that a *prima facie* case of obviousness has not been established against claim 10, and that claim 10 is in condition for allowance.

¹⁵ Office action, page 11.

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CONCLUSION

The applicant respectfully submits that all of the pending claims are in condition for allowance, and such action is earnestly solicited. The Examiner is invited to telephone the below-signed attorney at 612-373-6973 to discuss any questions which may remain with respect to the present application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

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